E- Murabaha a mechanism for E-Commerce

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Abstract: E- Murabaha is a new approach proposed as an e-commerce mechanism; intend to create an electronic Murabaha system. This system provides an effective technical mechanism for the execution of the Murabaha contract, allowing for the purchase of goods online from the commercial sites of the Islamic bank, in a manner which corresponds with the Islamic faith. Murabaha in Islamic banks: the client can view the item available on the bank’s website and directly select the item and reviews its details. The next step is to agree on the cost price of a real commodity and the price of a commodity after determining the margin of profits, premiums and payment mechanisms. Moving to the last stage of the system, the process of selling and sending takes place after the client has agreed to all the details of the property contract for the items. According to this system, the bank is presumed to have a commercial website where all the goods are available, so the system consists of two parties, thereby abiding by sharia rules. The bank discloses the actual cost of the item including the agreed profits. The systems offer a new addition to e-commerce, in the Islamic way, and provide significant development in both e-trading and finance structures compliant with sharia.

Keywords: Murabaha; sharia; Islamic banks; e-commerce; e-bank; e-payment; e-shopping.

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1. Introduction

Islamic banks in past decades have become influential players in the economies of Islamic countries, which explain its widespread presence and great growth [1]. Islamic banks are a relatively recent development compared with traditional banks [2], as for its definition, there is more than one, with the most common one describing it as a banking institution that collects funds and uses it within the scope of Islamic sharia “A religious law forming part of the Islamic tradition, It is derived from the religious precepts of Islam, particularly the Quran and the Hadith. Islamic law of transaction based on the prohibition of the usury which is known as Riba and the uncertainty which is known as Garar” [3], helping build an Islamic cooperation community, achieving distributive justice and placing money in Islamic society [4, 5, 6]. Islamic banks can also be regarded as a financial institution with an economic and social message operating under Islamic teachings; a bank with a message and not just a merchant, a bank looking for the most useful and productive projects and not just the most profitable ones [7]. The philosophy of Islamic banks is based on the principle of non-handling interest-taking and giving, accepting known deposits in the traditional banking system without charging interest rate against deposits as an incentive for depositors, but instead replacing them with a share of the expected profit or losses [8]. Islamic banks are also working on these deposits in the fields approved by Islamic a law, also through legitimate methods. Also, Islamic banks are financial institutions that act as financial intermediaries between the two parties of savers and investors, within the framework of the legitimate speculative formula based on the principle of profit and loss sharing, and the legal rule: “Algonm be Algorm”, in line with the practice of banking services disciplined in the framework of Islamic modes, including (Mudaraba, Musharaka, Murabaha, rent ended with ownership, etc.)[9].

Murabaha is defined as "a particular kind of sale on the basis of the cost plus profit" or "the sale on the basis of capital plus the specified agreed profit". In Murabaha, the bank purchases and possesses goods decided by the client, including consumer goods and production assets. After the bank acquires and owns the goods decided by the client, it is sold to them at a price that includes the purchase cost plus the agreed profit margin for the efforts made to complete the purchase as well as the expenses borne by the bank. The goods are then delivered to the client. The client pays for the goods fully in cash or in installments in accordance with the contract of sale. The Bank also provides "the Murabaha mode" to companies by providing them local or foreign raw materials, as well as equipment and machinery to establish and expand production lines [10].

However, Islamic banks lack modern techniques to help clients facilitate Islamic business transactions. One of these concerns is that Islamic dealings have clear and stringent procedures that must ensure transactions are compliant with sharia laws, and if any
condition or is deemed invalid for violating Islamic regulation, the transaction is disrupted. Increasing modernization is leading to clients needing technical systems that deliver banking transactions in an easier and secure manner, while being within the parameters of Islamic legitimacy. Hence, this paper provides a technical mechanism for the e-Murabaha system that helps customers finance the purchase of their goods through the websites of Islamic banks, so that the traditional Murabaha procedures are applied to finance the purchase of goods through the Internet. To be an application model conveys the dealings of Islamic banks towards legalizing transactions, providing an easy, efficient and secure environment capable of satisfying the ambitions of customers within a sharia rules for their dealings, and on the other hand, is an opportunity for Islamic banks to raise their profits and increase the number of their customers by providing these transactions through Electronic applications.

In this paper, the proposed model of the e-Murabaha system, in the second section, contains literature review, traditional Murabaha and procedures for obtaining financing for the purchase of goods, as well as reviews of technical models used in e-commerce. The third section reviews the proposed model and its components, the fourth section discusses the proposed model from the technical side and the banking side, and in the final section reviews the conclusion.

2. Literature Review

Islamic Shari’ah is based on primary and secondary sources. The first primary source is the Quran, the divine revelation that contains legal injunctions, and the second primary source is the Sunna, which relates the practice or code of conduct of the Prophet. And beside the primary sources there are secondary sources which are Ijma’ or consensus, and Qiyas or analogical deductions, and Ijtihad or interpretations to explain the law. All rules and regulation governing the Islamic transactions based on Sharia sources [3].

During the last decade, Islamic banks have witnessed a major expansion in technology, the most prominent of which is the spread of e-banks, which is a new trend and different from traditional banks because of its many significant advantages. E-banking is to conduct banking operations in electronic form through the use of the Internet technology, thus, they are virtual banks that set up their websites to provide the same services as the Bank's website from withdrawal, payment and transfer without the client's physical presence in the bank [11]. Among the most important advantages of E-banking are: Access to a broader base of customers, providing full and new banking services, reducing costs and increasing the efficiency of e-banks, card services [12]. In addition, e-banks offer clients good purchases opportunities at a low costs compared to traditional banks.

E-banking has a prominent role in the emergence and prosperity of e-commerce, which is defined as a set of activities and business transactions that are conducted using information technology, communication and the Internet, a quantum leap in trade has occurred [13]. And one of the most important processes that e-commerce offers is the shopping process. Shopping means processes related to customer access, to provide them with information about the company, brand, products or services [14], and the possibility of payment by e-payment. The e-payment service through the payment card enables e-payment of services due from anywhere, at any time, through several options, current account holders in any of the banks can choose the direct Debit feature of the account, without any additional charges or fees, with the possibility of obtaining an electronic financial report [15]. One of the most important ways to pay email, credit card: When using the user for this method of payment. The user will be able to receive the goods or service without the immediate payment, so that the user will pay the amount later in the way of cash. CashU: is a prepayment process that is made online by purchasing a card and packing it for a certain amount. And also, PayPal: This process is a service or intermediary between your credit card and the recipient of funds [16].

Murabaha defined as a particular kind of sale used as a trade based mode of finance to satisfy deficit units in society using the basics of valid sale in Islamic commercial law regarding the components of valid sale from the Sharia point of view which required a contract with offer and acceptance and specific rules of subject matter used in Murabah and apply the components of valid sale in Islamic jurisprudence as shown in figure 1 from existence, ownership, possession, availability and Halal purpose and the condition of certain price to avoid Riba which is strongly prohibited in Islam, respecting the forbidden time value of money [6,17].

![Figure 1. Components of valid sale.](image)

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Murababah known as punch of contracts applying the above components of valid sale and specially banking Murabah which is known as Murabaha to purchase order (MPA) requires many contracts and steps to apply the sharia requirements and avoid Garar and Riba, the two main prohibitions in Islamic transactions, this fact regulates sharp steps and valid contracts regarding the execution of Murabaha. The traditional practice of Murabaha in Islamic banking show different documents applying the sharia rules, starting from Master Murabaha financing contract, agency contract if needed, declaration form to apply the disclosure and transparency in cost price and agreed on profit margin and the necessary Sharia conditions of subject matter. To execute the proper Murabaha both parties must follow the necessary steps shown below [18]:

- The client and the institution sign a contract whereby the institution promises to sell and the client promises to buy the commodity.
- If needed, an agency contract can be signed by both parties in which the institution appoints the client as his agent for purchasing the commodity on the client’s behalf. Direct purchase in this proposed system has no need for an agency contract.
- The client will agree to the contract conditions including the price and the item description.
- The client informs the institution of his offer to purchase the item and provides his personal information, the method of payment and the guarantee.
- The institution accepts the offer and the sale are concluded whereby ownership as well as risk is transferred to the client.

Legal classifications of the two parties

- At the first stage, the institution and the client promise to sell and purchase a commodity in future. This is not an actual sale. It is just a promise to affect a sale in future on Murabahah basis. Thus at this stage the relation between the institution and the client is that of a promisor and a promise.
- At the second stage, the relationship between the institution and the supplier is that of a buyer and seller.
- At the third stage, the relation of buyer and seller comes into operation between the institution and the client, and since the sale is affected on deferred payment basis, the relation of a debtor and creditor also emerges between them simultaneously.

All these legal requirements must be taken into consideration and must come into operation with all their consequential effects, each at its relevant stage, and these different capacities should never be mixed up or confused with each other.

Basic rules for Murabahah:

- The subject of sale must exist at the time of the sale.
- The subject matter should be in the ownership of the seller at the time of sale.
- The subject of sale must be in physical or constructive possession of the seller when he sells it to another person.
- The sale must be instant and absolute.
- The subject matter should be a property having value.
- The subject of sale should not be a thing used for an un-Islamic purpose.
- The subject of sale must be specifically known and identified to the buyer.
- The delivery of the sold commodity to the buyer must be certain and should not depend on a contingency or chance.
- The certainty of price is a necessary condition for the validity of the sale.
- The sale must be unconditional. A conditional sale is invalid unless the condition is recognized as a part of the transaction according to the usage of the trade [18].

The above rules required sequence and contracts to apply the above rules, figure 2 show the follow of steps and contracts necessary to complete the Murabaha operation, clearly there is three participants in the operation to apply the required steps mentioned previously.

Figure 2. Murabaha steps through the different participants in the operation, bank and client / bank and supplier.

3. Proposed E-Murabaha System

This system provides an effective mechanism to execute the Murabaha contract through techniques activate Islamic transactions compliant with sharia
and achieve all sharia requirements discussed and mentioned previously in this paper, additionally the system trying to activate the e-commerce which potentially adopt by Islamic banks in the coming generations of banking services, the system assuming that Islamic bank has a commercial website offering the needed items, this resulting that the system consists of two parties are participant in the contract bank as the first party and client as the second party. Figure 3 illustrates the procedures followed in the E-Murabaha process.

Figure 3. E-Murabaha process.

Through the figure 3, the process begins by client visiting Islamic Bank website which contains all goods that the client needs. The client ordered the item from the website with the agreed price (x) which included the cost price (c) plus bank profit margin (m) represents in the equation x = c+m, client accepts the offered price with agreed deferred payment period that will declare and agreed in the Murabaha contract. Therefore, the deferred payment period is considered the finance period, and then the ownership of the sold item will transfer to the client at the time of purchase, but usually an specific percentage of the deal amount decided as a down payment in order to obtain a guarantee to the Murabaha operation, so this process is known in Islamic Murabaha as “Hamish jidyah.” “Hamish Jidyah” appears to be a warranty or insurance provided from the client to avoid any potential risk resulting from the client not execute the Murabaha contract, and this is considered as risk mitigation tool used with the approval of AAIOFI standards and Sharia supervisory boards [19].

Through the previous steps, the objectives and conditions for the completion of the Murabaha process have been achieved within the parameters of the Islamic Shariah. The reason for this is that the client’s awareness of the real price of the commodity, as well as completing electronic operation with simple, easy and effective steps. And avoid the complexities of traditional paper-based procedures to obtain finance from Islamic banks to acquire a commodity through Murabaha. As for Islamic banks, this system contributes to find an effective technical solution to increase profits, transactions, and customer confidence.

Figure 4 illustrates the proposed system of e-Murabaha in e-shopping.

Figure 4. E-Murabaha Components.

Through the figure 4, the proposed system contains several components:

1. Client.
2. Islamic Bank
3. E-commerce website.

Steps to complete the E-murabaha:

Step 1. Client Visit the bank’s website, and sign in.
Step 2. Identify the items to be purchase by Murabaha, so that all details concerning a commodity are shown on the website (model, colors, name, real price, etc.), note the Murabaha financing process is done for each commodity, to achieve the condition of the validity of the sale in Islamic rules.
Step 3. Negotiation phase, at this point, the bank verifies client information and security within the safe and secure use of the protocol. Client account used to verify the identity of the client as it is followed to ensure the authenticity of the information used on the bank [20]. Approval then is given to automatically complete the Murabaha process, and then to ensure that the
client reviewed and agreed the terms of the Islamic Murabaha contract electronically. And also aware of all details, in case if the client in need of additional information regarding the item it could be requested. At the end of this phase, the client determines the payment method such as the installment dates and values. This step followed by the issuance of a contract shows the price after adding the Murabaha profit margin to the cost price with the price of Hamish jidya and payment mechanisms and finally sending the final contract to the client.

Step 4. Client's approval of a Murabaha operation, make sure of reading all the instructions, and issue a contract of ownership of the item by the bank.

Step 5. The last step: delivery of the item, this option is commonly used in most e-commerce sites, by specifying the address and shipping way.

4. Discussion

The advanced technologies, currently used in the banking sector, create essential needs to cover all available services and products provided, in order to complete the transformation to digital banking system. Islamic banking sector specifically involved strongly in modern banking services, and all Islamic modes of finance including trade based mode of finance, participation based mode of finance and rental based mode of finance showed and proofed highly efficiency in finance and in client satisfaction, recently highly demand can easily be observed to Islamic banking products in both finance and investment side, this creates a great challenge for Islamic banking sector to develop the methods and ways, to be consistence with the recently used technologies.

This pushed many scholars and scientist to discuss the availability of creating and developing modern applications through available devices to enhance the clients satisfaction, and needs through E-Banking generally and mobile banking specially, putting in consideration the Sharia requirements to create a proper Sharia compliant applications, applying the rules and regulations of Sharia in modes of finance, this part tries to discuss a proposal of E-Murabaha.

The proposed system is an effective technical solution to one of the most important Islamic banking modes (Murabaha) which is providing a technical mechanism for Islamic bank client to conduct an operation within the control of Sharia through the Internet. In Figure 5, it reviews the home page of the bank's website, which enables the client to review and choose the item he/she wants to buy through the Murabaha contract.

The mechanism of the system depends mainly on the structure of the technical systems currently available in electronic banking; however, the proposed system differs from the rest of the existing banking technologies. And the reason why it is because of the different banking procedures of Islamic banking which is considered as a special case and need to follow strict steps to make the process compliant with sharia. For example, in the e-shopping system via Visa Card [23], a purchase process begins with the buyer’s choice of a commodity. Then going to the e-payment process simply, just by entering the account number and password (make sure the information is required to buy by Visa as a refund), and at the end the address is selected and go to delivery phase. However, in the E-Murabaha system, the system of applying traditional Murabaha steps must be strictly enforced, and if any step disrupted or missed this process is consider invalid. Hence, a system has been found as a technical solution for converting traditional Islamic banking transactions in to modern and electronic transaction. To discuss the legitimate Islamic aspect of the validity of the proposed system, our study was based on the Islamic side of banking transactions.

![Figure 5. Proposed item Selection Screen.](image-url)
information. Check that the user has all the details of the specific commodity, and also make sure that the user wants to buy the specific item, and this is one of the basic conditions of the Murabaha process. The user then moves to a calculation screen as shown in figure 6, the screen contains a wide options that enable the user to determine the period and value of installments. Figure 7 shows a copy of the bank’s negotiation contract, which contains the finance period and installment value, as well as showing the cost price of the commodity and the selling price of the commodity after adding the Murabaha profit margin. In this step, one of the terms of the Murabaha was realized. This is the user’s awareness of the value of the commodity after adding the Murabaha profit rate, the duration of the installment and the installment value. If the user agrees to the issued information (the value of the commodity, the period of the installments and the premium value), the bank issues the ownership contract, which is one of the basic elements of the validity of the Murabaha process. Then activate a purchase, and add a commodity to the client’s shopping cart. The final step in the purchase process is the delivery process, which is very similar to the methods used in the E-commerce sites such as (Amazon or eBay) [24], the user is required to provide a specific address to which he wants to deliver the commodity. And then send a letter to the personal mail attached with sales contract and information about the commodity.

Note this research focuses on the sale of one commodity through the bank’s site. In the future we will discuss the development of the system to find a ways to execute more than one commodity at the same time, and the reason for this is that the Islamic banking procedures are strict steps to complete the Murabaha process, in case a condition is broken, it cancels the sale and becomes prohibited and further discussion for using the agency contract to maximize options available for clients to use more available shopping website for the items that not available in bank shopping website.

![Image](https://via.placeholder.com/150)

Figure 6. Installment details screen.

![Image](https://via.placeholder.com/150)

Figure 7. E-Murabaha negotiation contract.

On the security side, the security system in the structure of the proposed system, it follows strictly security procedures used in electronic banking sites, to be a secure system so the client feels more security and privacy. In the process of verifying the user’s identity, the system asks the client to enter the user name and password, and to go to a page that verifies the identity through a special code sent through the e-mail or phone. And then required the user to enter the code and move to the special screens of purchase. In addition, the system also makes sure that the client gets a contract (negotiation and sales), and make sure the user readings all the conditions contained in both contracts.
The two contracts are legal, issued by serial number, bank sign and bank seal, in addition to the e-signature of the client, an example of the e-signature of the system to verify the identity of the client is the entry of a code also sent to his/her phone or email, in addition to entering the information on his/her Visa card. At this stage, the system has been able to verify the identity of the client, and to cover the e-Murabaha procedures in the system securely and effectively.

E-Murabaha provides many benefits for the Islamic bank, the clients and the society, the Islamic bank achieves a smooth and efficient mechanism to attract more clients and achieves the preferred financial diffusion and coverage. As a result, it stimulates a wide range of clients, especially in Islamic communities, to use Shariah-compliant Islamic Murabaha to satisfy their needs. In addition, it achieves to the banks a great benefit of reducing the paper and administrative work. On the other hand, E-Murabaha provides clients an easy, affordable and secure option that saves both time and effort, and gives clients the opportunity to meet their needs through concessionary financing and free from any legal impediments, which are sorely missed by Muslim communities. E-Murabaha also gives the client the opportunity to choose between a variety of items available for differed sale in the Murabaha mode, with the highly security and privacy provided by the application to the clients. The proposed system applies the clear legal requirements of the contract from sharia point of view, as well as the appropriate prices for the goods and the possibility of buying in installments, which will be a good competitor for all e-commerce sites. The e-Murabaha is expected to raise the levels of business activity on E-commerce, which creates an attractive environment for Islamic bank clients, and it is a quality addition to Islamic banks from converting traditional procedures for murabaha to technical measures under Islamic law.

5. Conclusions And Future Work
The proposed system provides an effective technique for Murabaha, which is considered as one of the most important Islamic banking mode of finance, using the sale as a finance mode. Also the system provides a modern technical solution. All necessary steps in the traditional Murabaha are applied in the proposed system, with new options to create an electronic environment capable of providing clients of Islamic and non-Islamic banks with e-Murabaha system, which seeks to add the option of e-Murabaha in financing. The system of the proposal is different from conventional e-shopping systems in both input and output, so it has clear steps to verify the validity of financing the purchase of a commodity in a Murabaha contract. E-Murabaha is an ideal solution to increase the profits of Islamic banks and to reduce the time used in traditional manual paper-based transactions. Accordingly, E-Murabaha is an integrated system. In the further updates, the system aims to provide more technical systems for rest of Islamic banking contracts with a compliant Sharia technical framework, which fulfills the Islamic requirements for business transactions.

Based on the research results, this proposed system gives the Islamic banks a comparative advantage, compare to the conventional banking applications, in terms of the easiness, safety and efficiency, which are required elements in banking operations, especially in the current digital environment, where depending on rapidly technology increases.

The proposed system considers the Sharia rules regarding the Murabaha valid steps and conditions, while executing the converted digital steps, as compliant with Sharia product, with sharp following to the necessary sequence in valid Murabaha contract, which is possible in the proposed system.

This research can contribute significantly in the Islamic fin-tech literature which is recently in lack of applied researches, as a reference to academia and practitioners, in order to cover different areas in the Islamic banking operations supporting the convert of the traditional operations to digital operations, getting the benefits from the block chain technology and smart contracts as the expected future tools for banking industry.

The paper presents an interesting business model for the E-Commerce of Islamic countries which is in compliance with the sharia laws, the legal rules, and the Islamic faith, this paper intend to convert the traditional procedures to electronic system, the validation process based on approval of the sharia rules with the proposed system steps. The Future work will include detailed validation of the technical side and the banking side, moreover, a real scenario testing will carry out, supported by a validation from experts in banking and industry.

References


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